Receipts

526 Rec'd PCT/PTO 13 JUL 2000

CERTIFICATE OF MAILING			
I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231.			
Typed or Printed Name	Mathew Otts		
Signature	Mathew Otts	**Date**	July 7, 2000

9.8.00
#14

REQUEST FOR CORRECTED FILING RECEIPT

Address to:
Assistant Commissioner for Patents
Washington, D.C. 20231

Attorney Docket	GRUE-003
First Named	Bujard, et al.
Application Number	09/269,874
Int'l Filing Date	October 2, 1997
Group Art Unit	1641
Examiner Name	N/A
Title	Recombinant Process For Preparing a Complete Malaria Antigen GP190/MSPI (as amended)

OIPE JC03
JUL 13 2000
PATENT & TRADEMARK OFFICE

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SEP 01 2000
TECH CENTER 1600/2900

Corrected 6/22/00

Sir:

A filing receipt for the above-identified patent application has been issued by the U.S. Patent and Trademark Office (copy attached) and has been found to contain the following error(s):

(1) The title reads "Recombinants Process For Preparing a Complete Malaria Antigen GP190/MSPI", but should read --Recombinant Process For Preparing a Complete Malaria Antigen GP190/MSPI--.

It is believed that the error was made by the U.S. Patent and Trademark Office since the first page of the specification indicates that the title is "Recombinant Process For Preparing a Complete Malaria Antigen GP190/MSPI". Copies of all of the above documents are attached.

No fee is believed due in connection with this request. However, if for any reason a fee is found to be necessary, the Commissioner is authorized to charge such fee to Deposit Account No. 50-0815.

Respectfully submitted,
BOZICEVIC, FIELD & FRANCIS LLP

Date: July 7, 2000

By: _____
Paula A. Borden
Registration No. 42,344

BOZICEVIC, FIELD & FRANCIS LLP
200 Middlefield Road, Suite 200
Menlo Park, CA 94025
Telephone: (650) 327-3400
Facsimile: (650) 327-3231

CORRECTED FILING RECEIPT

OC000000005096902

UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
Address: ASSISTANT SECRETARY AND COMMISSIONER OF PATENT AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	DRAWINGS	TOT CLAIMS	IND CLAIMS
09/269,874	08/02/1999	1641	1556	~~402162000200~~ GMF-003	16	1	1

PAULA A BORDEN
MORRISON & FOERSTER
755 PAGE MILL ROAD
PALO ALTO, CA 943041018

COPY

Date Mailed: 05/04/2000

Receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Customer Service Center. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "N tice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the PTO processes the reply to the Notice, the PTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).**

MO PAB

Applicant(s)

HERMANN BUJARD, HEIDELBERG, GERMANY;
RALF TOLLE, LUDWIGSBURG, GERMANY;
WEIQING PAN, HEIDELBERG, GERMANY;

C ntinuing Data as Claimed by Applicant

THIS APPLICATION IS A 371 OF PCT/EP97/05441 10/02/1997

Foreign Applications

GERMANY 196 40 817.2 10/02/1996

RR 6/12
DOCKETED
Correct OFR (Title) 6/22/2000

DOCKETED

**** SMALL ENTITY ****

Title

RECOMBINANT PROCESS FOR PREPARING A COMPLETE MALARIA ANTIGEN, GP190/MSP1

Preliminary Class

424

Data entry by : BROWN, MICHAEL **Team :** 1600 **Date:** 05/04/2000

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Title 35, United States Code, Section 184
Titl 37, Code of Federal Regulations, 5.11 & 5.15

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- The articles such as "**a**," "**an**" and "**the**" are not included as the first words in the title of an application. They are considered to be unnecessary to the understanding of the title.
- The words "**new**," "**improved**," "**improvements in**" or "**relating to**" are not included as first words in the title of an application because a patent application, by nature, is a new idea or improvement.
- The title may be truncated if it consists of more than 600 characters (letters and spaces combined).
- The docket number allows a maximum of 25 characters.
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Any corrections that may need to be done to your Filing Receipt should be directed to:

Assistant Commissioner for Patents
Office of Initial Patent Examination
Customer Service Center
Washington, DC 20231

Recombinant process for preparing a complete malaria antigen, gp190/MSP1

The invention concerns a recombinant manufacturing process for the complete malaria antigen gp190/MSP1, as well as separate naturally-occurring domains and parts of the same, by expression of a synthetic DNA sequence. The invention concerns in addition the DNA sequences produced by the process and the host organisms used for the expression of the DNA sequences. In addition the invention concerns the use of the complete malaria antigen as well as parts thereof as a vaccine for immunization against malaria.

Finally the invention under consideration concerns a stabilization process for AT-rich genes, as well as stabilized genes which are characterized by a reduced AT content.

Malaria is one of the most significant infectious diseases in the world. According to WHO reports, in 1990 40% of the world population in 99 countries was exposed to the risk of malaria. At the same time its distribution is enormously on the increase. This may be ascribed above all to intensive development of resistance in the parasites causing malaria, promoted by the recommendation and use as prophylactics of the drugs intended for treatment. Besides the search for new and effective chemotherapeutic agents hope is nowadays directed towards the development of vaccines, since people in areas of the world where malaria is epidemic do manage to develop some kinds of immunity. As well as a natural resistance to malaria, such as that found in heterozygous carriers of the sickle-cell gene and people with thalassaemia and glucose-6-phosphate dehydrogenase deficiency, in the course of malarial infection in humans immune mechanisms can be stimulated which express themselves in a heightened capacity for resistance to the Plasmodia. Consequently the course of the disease in populations exposed to severe epidemics is generally less threatening than in persons exposed to the infection less frequently or for the first time.

The main problem in the development of a vaccine is the identification of an antigen which can induce protective immunity, since there is no easily accessible well-defined animal model available for the four parasites affecting man. The organism causing malaria belongs to the Plasmodium group, of which infection with one of the four parasites Plasmodium vivax,